

## Contents to volume 70

### Feature papers

	<i>Issue</i>	<i>Page</i>
Laganà, A., The impact of parallel computing on reactive scattering calculations	2	223
Gupta, S., Computing aspects of molecular dynamics simulation	2	242

### Computational physics

Schwenke, D.W., On the computation of ro-vibrational energy levels of triatomic molecules	1	1
Wagner, R.G., A Monte Carlo program for generating QED radiative decay W and Z events	1	15
Bonomi, E. and M. Tomassini, Data-parallel molecular dynamics: 1-D hard-core fluid	1	32
Kroes, G.J., The royal road to an energy-conserving predictor-corrector method	1	41
Jamieson, M.J. and R.S. Friedman, Error estimation in molecular vibrational eigenenergies calculated by the Hartree and Numerov methods	1	53
Pérez-Jordá, J.M., E. San-Fabián and F. Moscardó, A simple, reliable and efficient scheme for automatic numerical integration	2	271
Midy, P., Scaling transformations and extrapolation algorithms for vector sequences	2	285
Lee, D.K., Calculation of coefficients in a power-series expansion of the nome $q = \exp[-\pi K(k')/K(k)]$	2	292
Di Marzio, F. and J. Szajman, Mie scattering in the first-order corrected eikonal approximation	2	297
Cohen, E., Computer animations of quantum field theories	3	441
Langdon, A.B., On enforcing Gauss' law in electromagnetic particle-in-cell codes	3	447
Amir-Azizi, S. and G.J. Daniell, Application of the linear filtering algorithm to two models with non-trivial topology	3	451

**Computational physics (continued)**

	<i>Issue</i>	<i>Page</i>
Severijns, C.A., G. Verbist, H.H. Brongersma and J.T. Devreese, Differential correction algorithm for a function of two continuous variables: application to the collision integrals	3	459
Chialvo, A.A. and P.G. Debenedetti, An automated Verlet neighbor list algorithm with a multiple time-step approach for the simulation of large systems	3	467
Rhoades Jr., C.E., A fast algorithm for calculating particle interactions in smooth particle hydrodynamic simulations	3	478
Atanasiu, C.V., L.E. Zakharov and A. Moraru, Integral equations method in equilibrium and stability computation for iron-core transformer tokamaks	3	483
Makino, J., T. Takaishi and O. Miyamura, Generation of shift register random numbers on distributed memory multiprocessors	3	495
Ishikawa, T., P.Y. Wang, K. Wakui and T. Yabe, A method for the high-speed generation of random numbers with arbitrary distributions	3	501
Book reviews	1	219
<b>Computer programs in physics</b>		
Irbäck, A., J. Jurkiewicz and S. Varsted, Measuring the string tension in random surface models with extrinsic curvature	1	59
Jezabek, M., Z. Wąs, S. Jadach and J.H. Kühn, The $\tau$ decay library TAUOLA, update with exact $O(\alpha)$ QED corrections in $\tau \rightarrow \mu(e)\nu\bar{\nu}'$ decay modes	1	69
Heddle, D.P. and L.C. Maximon, LASPE: a subroutine for generating straggling distributions for positrons and electrons	1	77
López, J.A. and J. Randrup, SOS: sequential or simultaneous nuclear multifragmentation	1	92
Anlauf, H., H.D. Dahmen, P. Manakos, T. Mannel and T. Ohl, KRONOS - A Monte Carlo event generator for higher order electromagnetic radiative corrections to deep inelastic scattering at HERA	1	97
Ohl, T., hepawk - A language for scanning high energy physics events	1	120
Fang, D.F. and J.F. Shriner Jr., A computer program for the calculation of angular-momentum coupling coefficients	1	147
Liu, Y.X., H.Z. Sun and E.G. Zhao, A new FORTRAN program for the CFP's of a system with identical bosons	1	154
Lönblad, L., C. Peterson and T. Rönvaldsson, Pattern recognition in high energy physics with artificial neural networks - JETNET 2.0	1	167

**Computer programs in physics (continued)**

	<i>Issue</i>	<i>Page</i>
Chaturvedi, S. and R.G. Mills, ECRCYL: a code for electron cyclotron radiation transport	1	183
Bortolani, E. and G. Maino, Photon absorption and scattering cross-sections by triaxial nuclei	1	207
Jadach, S., E. Richter-Was, B.F.L. Ward and Z. Was, Monte Carlo program BHLUMI 2.01 for Bhabha scattering at low angles with Yennie-Frautschi-Suura exponentiation	2	305
Moncrieff, D., V.R. Saunders and S. Wilson, Diagrammatic many-body perturbation expansion for atoms and molecules. VIII. ccMBPT-4	2	345
Lopez-Piñeiro, A., M.L. Sanchez and B. Moreno, MORSMATEL: a rapid and efficient code to calculate vibration-rotational matrix elements for $r$ -dependent operators of two Morse oscillators	2	355
Tuzun, R.E. and D. Secrest, Numerical evaluation of Kratzer oscillator matrix elements	2	362
Ramek, M. and B. Gruber, Programs for symmetry adaptation coefficients for semisimple symmetry chains: the general case	2	371
Lou, Y. and B. Johansson, A multivariant interpolation routine for a random distribution of data points	2	389
Ayala, C., The $\mu(x, \beta, \alpha)$ function and its role in the analysis of the QCD-SVZ sum rules	2	401
Renner, F., A constructive REDUCE package based upon the Painlevé analysis of nonlinear evolution equations in Hamiltonian and/or normal form	2	409
Ting, J.J.-L., J.M. Yuan and T.-F. Jiang, Vectorizable wave propagation fortran code for calculations of multiphoton dissocia- tion	2	417
Papp, Z., Calculating bound and resonant states in local and nonlocal Coulomb-like potentials	2	426
Papp, Z., Calculating scattering states in local and nonlocal Coulomb-like potentials	2	435
Burda, Z., J. Jurkiewicz and L. Kärkkäinen, Swendsen-Wang dynamics for the Potts model on a dynamically triangulated random surface	3	510
Cooper, R.K. and R.J. Allan, Fortnet (3L) v1.0: Implementation and extensions of a message-passing harness for transputers using 3L Parallel Fortran	3	521
Lai, S.-T. and Y.-N. Chiu, Exact computation of the $9-j$ symbols	3	544
Park, S.C., J.P. Draayer and S.-Q. Zheng, Fast sparse matrix multiplication	3	557

Raines, P.E. and T. Uzer, Computing normal forms of nonseparable Hamiltonians by symbolic manipulation	569
Sanders, D.E., M.S. Stave, L.S. Perkins and A.E. DePristo, SCT89: a computer code for atomic and molecular scattering from clean and adsorbate covered surfaces	579

